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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/385,278	08/30/1999	JOHAN P.M.G. LINNARTZ	PHN17.090	8922

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EXAMINER

LEE, RICHARD J

ART UNIT PAPER NUMBER

2621

DATE MAILED: 09/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/385,278

Applicant(s)

LINNARTZ ET AL.

Examiner

Richard Lee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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1. Upon further review and consideration, the Final Office action dated December 29, 2003 is hereby vacated in view of the following new grounds of rejections. The applicants' arguments from the Brief filed September 2, 2004 have been considered, but are deemed moot in view of the following new grounds of rejections. The Examiner apologizes for any inconvenience that this may have caused for the applicants.

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 18-20 rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claim 18 is directed to a signal claim that does not fall within any of the categories of patentable subject matter set forth in 35 U.S.C. 101. A claimed signal is not a "process" under 35 U.S.C. 101 because it is not a series of steps. A claimed signal has no physical structure, does not itself perform any useful, concrete, and tangible result, and thus, does not fit within the definition of a machine. A claimed signal is not matter, and therefore is not a composition of matter. A product is a tangible physical article or object, some form of matter, which a signal is not. A signal does not fall within the definitions of manufacture. And since dependent claims 19 and 20 are directed to further limitations showing no practical application, claims 18-20 as a whole do not fall within one of the four statutory classes of 35 U.S.C. 101.

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4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 10-13, 15, 16, and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawamae et al of record (6,404,781) in view of Ng et al (5,838,874).

Kawamae et al discloses a data transmission method for embedded data as shown in Figures 2-5, and 8, and substantially the same video signal, method and arrangement of decoding a digital video signal, and arrangement and method of transcoding a digital video signal as claimed in claims 10-13, 15, 16, and 18-20, comprising substantially the same means (i.e., 4 of Figure 5) for receiving a main bitstream representing an image of a video signal; means (i.e., additional information data, see Figure 3, and column 1, lines 25-34, column 6, lines 49-56, column 7, lines 37-57, column 9, lines 17-22, column 10, lines 38-49) for receiving an auxiliary bitstream representing replacement video information for an image area of the image, the auxiliary bitstream is accommodated in user data fields of the main bitstream; means for replacing a sub-series of bits of the main bitstream representing the image area by the replacement video information to obtain a modified bitstream (i.e., the video data is replaced with a set of data which includes additional information data being embedded into the video data, thereby replacing a sub-series of bits of the video data representing the image area and providing the modified bitstream, see column 1, lines 25-34, column 6, lines 49-56, column 7, lines 37-57, column 8, lines 5-35, column 9, lines 17-22); means (see 5, 9 of Figure 5) for transmitting the modified bitstream; means (13 of Figure 5) for decoding the modified bitstream; an image area

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of the video signal being encoded into a sub-series of bits (i.e., the additional information data representing the replacement video data may be embedded into a transmission data and thereby being encoded separately from the video data through the use of compressor/encoder 8 of Figure 5, see column 8, lines 22-29, column 9, lines 11-29, column 10, lines 12-37); deriving the position and/or size of the image area from data included in the auxiliary bitstream (see Figure 3 and column 7, lines 37-57); an indicia identifying block size of the replacement video information (i.e., as identified by the header data of the MPEG format, see column 10, lines 38-49); and an identifier that identifies existence of the replacement information within the video signal (i.e., as identified by the header data of the MPEG format, see column 10, lines 38-49).

Kawamae et al does not particularly disclose, though, wherein the sub-series is represented by a substantially same number of bits as the image area, and the replacement video information is being represented by a substantially same number of bits as the sub-series as claimed in claims 10, 11, 15, 16, and 18. However, Ng et al discloses an audio visual encoding system as shown in Figures 4, 5, and 17, and teaches the conventional editing of certain regions within video and the maintaining of the same number of bits for the replaced edited region of interest (see 172 of Figure 5, column 13, lines 33-60, column 28, lines 21-43). Therefore, it would have been obvious to one of ordinary skill in the art, having the Kawamae et al and Ng et al references in front of him/her and the general knowledge of the manipulation of bits of replacement videos, would have had no difficulty in providing the replacement of edited regions with the same number of bits as the original video as taught by Ng et al for the system of Kawamae thereby providing the representation of the sub-series by a substantially same number of bits as the image area and the replacement video information being represented by a

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substantially same number of bits as the sub-series for the same well known maintaining of a desired bandwidth requirement purposes as claimed.

6. Claims 14 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawamae et al and Ng et al as applied to claims 10-13, 15, 16, and 18-20 in the above paragraph (5), and further in view of Epstein of record (6,490,355).

Kawamae et al and Ng et al discloses substantially the same arrangement and method as above, but does not particularly disclose means for determining whether the image area represented by the sub-series of bits of the main bitstream identifies copy protection status information and means for enabling recording of the modified bitstream if the determination is positive as claimed in claims 14 and 17. It is noted that Kawamae et al does teach copy control information for inhibiting playback and/or inhibit of outputting of the reproduced signal (see column 9, lines 1-4, lines 51-56), but not particularly copy protection status information and the means for enabling recording of the modified bitstream if the determination is positive as claimed. However, Epstein discloses a method and apparatus for use of a time dependent watermark for the purpose of copy protection as shown in Figures 1 and 3, and teaches the conventional means for determining whether the image area identifies copy protection status information and means for enabling recording of the modified bitstream if the determination is positive (see column 2, lines 39-58, column 4, lines 16-59, column 5, line 61 to column 6, line 21). Therefore, it would have been obvious to one of ordinary skill in the art, having the Kawamae et al, Ng et al, and Epstein references in front of him/her and the general knowledge of copy protections in recordings/reproducing of video, would have had no difficulty in providing the means for determining whether the image area identifies copy protection status information

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and means for enabling recording of the modified bitstream if the determination is positive as taught by Epstein for the video image encoding and decoding as shown in Figure 5 of Kawamae et al for the same well known copy protection of video data purposes as claimed.

7. Claims 1-6 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawamae et al and Ng et al as applied to claims 10-13, 15, 16, and 18-20 in the above paragraph (5), and further in view of Vynne et al of record (5,960,081).

Kawamae et al and Ng et al discloses substantially the same arrangement and method as above, further including an arrangement and method for transmitting a video signal comprising means (i.e., 4 of Figure 5) for receiving an image of an original video signal; means (i.e., additional information data, see Figure 3, and column 1, lines 25-34, column 6, lines 49-56, column 7, lines 37-57, column 9, lines 17-22, column 10, lines 38-49) for modifying an image area of the image to create a modified video signal; means (8, 9 of Figure 5) for transmitting the modified video signal; the modified video signal is encoded into a bitstream and the image area is represent by the sub-series of bits (see 8 of Figure 5); and wherein the modified video signal is predictively encoded and the step of modifying is applied to pictures which are not referred to by other pictures (see column 10, lines 38-49).

Kawamae et al and Ng et al does not particularly disclose characterized in that the arrangement includes means for transmitting an auxiliary signal defining a sub-image to replace the modified image area of the modified video signal, wherein the sub-image is encoded by a substantially same number of bits as the image area, wherein the replacement video information is the image area of the original signal, the replacement video information is encoded and represented by a substantially same number of bits as the modified image area, and the auxiliary

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signal is accommodated in user data fields of the bitstream and includes data defining the position and/or size of the replacement video information, as claimed in claims 1-5, and 9. However, Vynne et al discloses an embedding of a digital signature in a video sequence as shown in Figures 2.1-2.3, and teaches the conventional replacement of modified image areas such as logos with the original image or superimposing another logo (see column 1, lines 11-42). And Ng et al teaches the conventional encoding of sub-images by a substantially same number of bits as the image area, and wherein the replacement video is represented by a substantially same number of bits as the modified image area (i.e., editing of certain regions within encoded video and the maintaining of the same number of bits for the replaced edited region of interest, see 172 of Figure 5, column 13, lines 33-60, column 28, lines 21-43). It is hence considered obvious to incorporate such video replacement within the image coding and decoding system as shown in Figure 5 of Kawamae et al to thereby provide substantially the same auxiliary signal (i.e., replacement video of Vynne et al) defining a sub-image to replace the modified image area of the modified video signal, wherein the sub image is encoded by a substantially same number of bits as the image area (i.e., as provided by Ng et al, thereby providing the sub image and image area to be encoded with the use of compressor/encoder 8 of Kawamae et al, and thereby providing the encoding of the sub-image with substantially the same number of bits as the image area), wherein the replacement video information is the image area of the original signal, the replacement video information is encoded (i.e., 8 of Figure 5 of Kawamae et al) and represented by a substantially same number of bits as the modified image area (i.e., as provided by Ng et al), and the auxiliary signal is accommodated in user data fields of the bitstream and includes data defining the position and/or size of the replacement video information (see Figure 3 of Kawamae



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et al and column 7, lines 37-57, column 10, lines 38-49). Therefore, it would have been obvious to one of ordinary skill in the art, having the Kawamae et al, Ng et al, and Vynne et al references in front of him/her and the general knowledge of video replacements of logos, would have had no difficulty in using the teachings of Vynne et al involving the replacement of modified image areas such as logos with the original image to provide substantially the same replacement of modified image areas such as watermarks with the original image within image coding and decoding systems of Kawamae et al and the encoding of sub image data by a substantially the same number of bits as the image area and replacement video being represented by a substantially same number of bits as the modified image area as taught by Ng et al within the system of Kawamae et al for the same well known removal of channel logos and watermarks and replacement with original video data so as to not be able to authenticate and distinguish the source of video and maintaining a desired bandwidth constraint purposes as claimed.

8. Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Kawamae et al, Ng et al, and Vynne et al as applied to claims 1-6, 9-13, 15, 16, and 18-20 in the above paragraphs (5) and (7), and further in view of Epstein of record (6,490,355).

The combination of Kawamae et al, Ng et al, and Vynne et al discloses substantially the same arrangement and method as above, further including wherein the image is modified in such a manner that the modified video signal has a pattern that is not reproduced upon playback by conventional analog video recorders (i.e., the logo may be removed, thereby not being able to be reproduced upon playback, see column 1, lines 11-42 of Vynne et al).



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The combination of Kawamae et al, Ng et al, and Vynne et al does not particularly disclose wherein the modification of the image area identifies copy protection status information as claimed in claim 7. It is noted that Kawamae et al does teach copy control information for inhibiting playback and/or inhibit of outputting of the reproduced signal (see column 9, lines 1-4, lines 51-56), but not particularly copy protection status information as claimed. However, Epstein discloses a method and apparatus for use of a time dependent watermark for the purpose of copy protection as shown in Figures 1 and 3, and teaches the conventional identification of copy protection status information (see column 2, lines 39-58, column 4, lines 16-59, column 5, line 61 to column 6, line 21). Therefore, it would have been obvious to one of ordinary skill in the art, having the Kawamae et al, Ng et al, Vynne et al, and Epstein references in front of him/her and the general knowledge of copy protections in recordings/reproducing of video, would have had no difficulty in providing the identification of copy protection status information as taught by Epstein for the video image encoding and decoding as shown in Figure 5 of Kawamae et al for the same well known copy protection of video data purposes as claimed.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard Lee whose telephone number is (571) 272-7333. The Examiner can normally be reached on Monday to Friday from 8:00 a.m. to 5:30 p.m, with alternate Fridays off.

Richard Lee/rl

9/15/06

  
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TC 2600